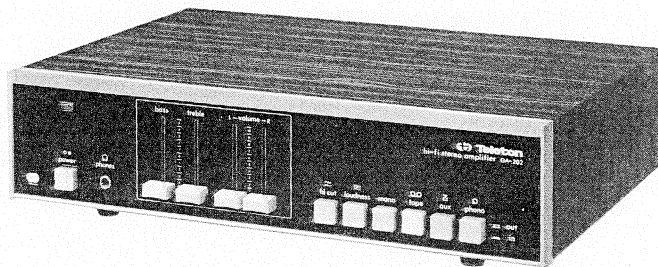


SERVICE MANUAL

30 Watt Stereo Hi-Fi Amplifier MODEL GA-202



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Tel. Chelmsford 62 442 TX 99 338

TELETON N.V.
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Nieuwe Herengracht 119 Amsterdam
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TELETON Electro (France) S.a.r.l.
21 rue Paul Lafargue 94 Kremlin-Bicêtre
Tel. 726 4091

TRANSACO AG
Kanzleistrasse 126 8004 Zürich
Tel. 39 45 60/23 50 40 TX 52 362

SPECIFICATIONS:

- Circuit : Quasicompl. Symmetry
- Semiconductors : 20 Transistors, 2 Diodes,
2 Rectifiers
- Inputs : Phono. MAG 2mV 50kohm
(Sensitivity for Phono. X'tal 200mV 3kohm
1 kHz 15W output, AUX 150mV 100kohm
impedance) Tape 130mV 50kohm
- Output power : Continuous each 20W/each
(1000 Hz 1% Continuous both 16W/each
distortion) Dynamic (Music) 27W/each
- Headphone output : Output voltage 500mV *
- Recording output : Output voltage 50mV *
(Load 47 kohm) Output impedance 47 kohm
- I.M. distortion factor : 1%
(250Hz : 8 kHz 4:1)
- AC line voltage : 110/117V
50Hz 220/240V Switchable
- Power consumption : 80W max.
- Dimensions (WxDxH): 388 x 265 x 99 mm
- Weight : approx 5.7kg
- Power band width AUX: 20—30000 Hz
(1% distortion —3dB)
- Frequency response : 30—30000 Hz
(AUX/TAPE 2.5V —3dB)
- High cut filter at : —6dB/Oct
10 kHz —8 dB
- Loudness action : 100Hz 10dB
10 kHz 5 dB
- Tone control action : 100Hz boost 13dB
cut 12dB
10 kHz boost 12dB
cut 12dB
- Hum and Noise
Volume maximum : nominal. max.
MAG (1 kohm terminate): 20mV 40mV
AUX : 10mV 20mV
TAPE : 10mV 20mV
Volume minimum : 1mV 3mV
(Bass Treble maximum) :
* Reference output power 15W

ALIGNMENT INSTRUCTION:

- Equipment required : (See Fig. 1 and 2)
- Signal Generator (SG): Output 1 kHz
with attenuator approx. 10—500mV
R 10 kohm distortion 0.1%
- Oscilloscope (OSC) : normal
- Amperemeter (AM) : DC 0—100mA
- Volt meter (VM) : DC 0—50V
- Dummy load (R) : 8 ohm 5% 30W
- For further checks :
- Distortion Meter (DM)
- Audio-Voltmeter (AVM)

STEP	OUTPUT	ADJUST	ADJUST FOR
1	0	R215—L R216—R or	$V_c = 1/2 V_{cc}$
2	0	R221—L R222—R or	$I_C = 20 \text{ mA}$
3	16—17W	R215—L R216—R or	Symmetric sine wave as shown in Fig. 2.

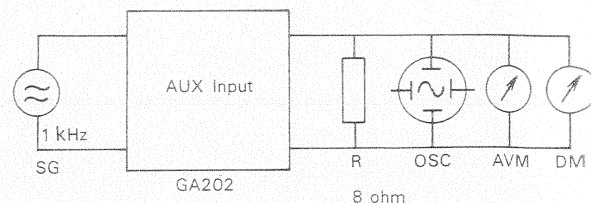


Fig. 1

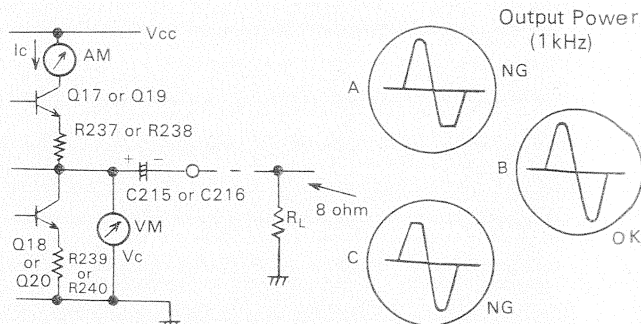


Fig. 2

SCHEMATIC DIAGRAM

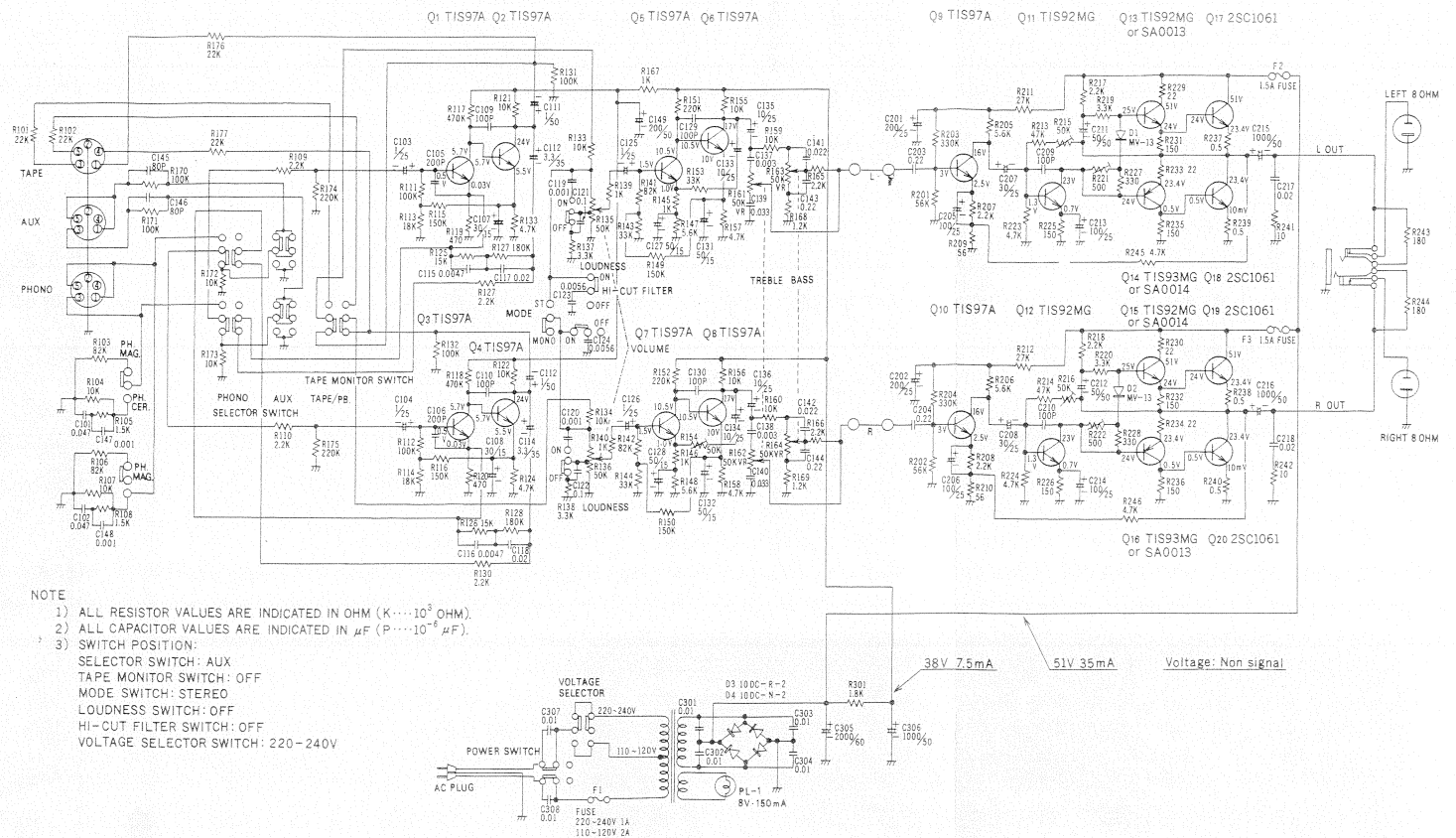


Fig. 5

MAIN AMP P.C. BOARD (TOP VIEW)

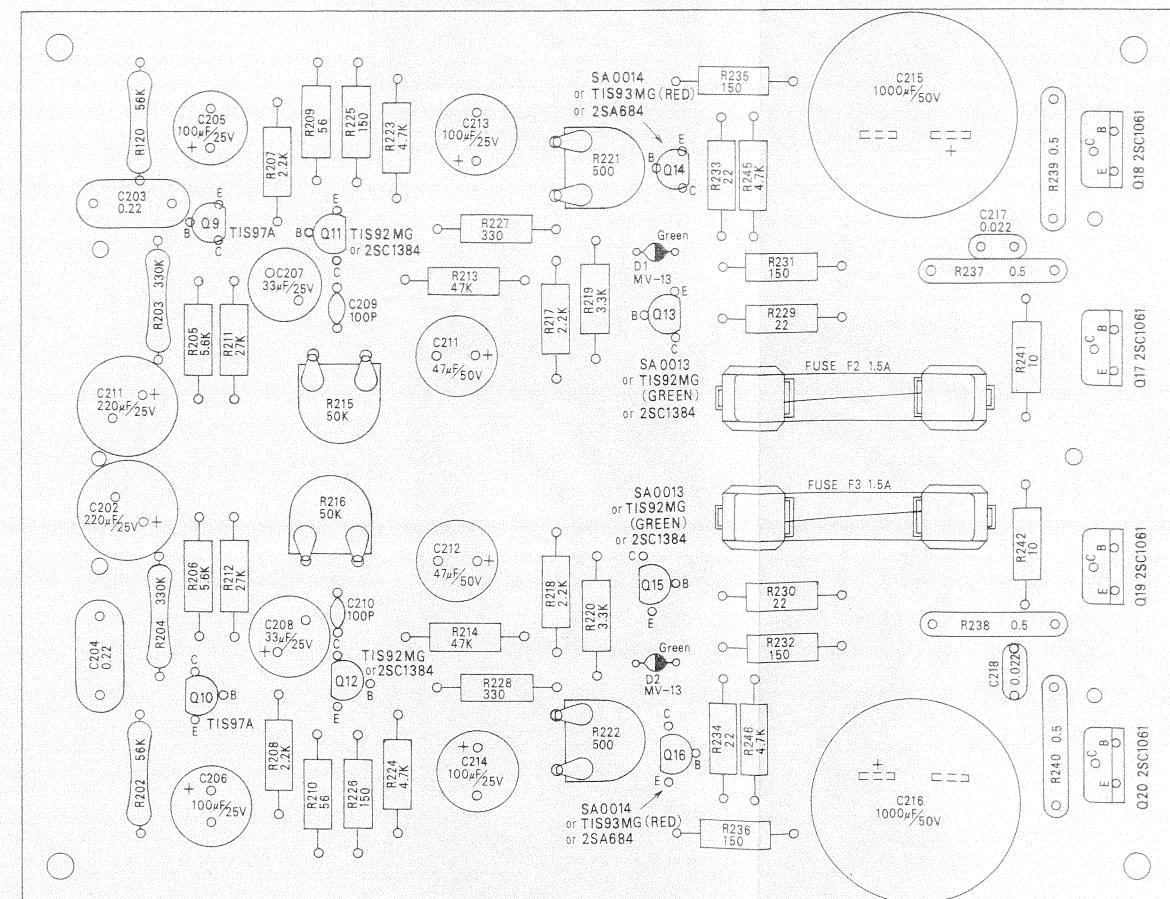


Fig. 6

INPUT PRINTED CIRCUIT BOARD

(Set No. Over 3000)

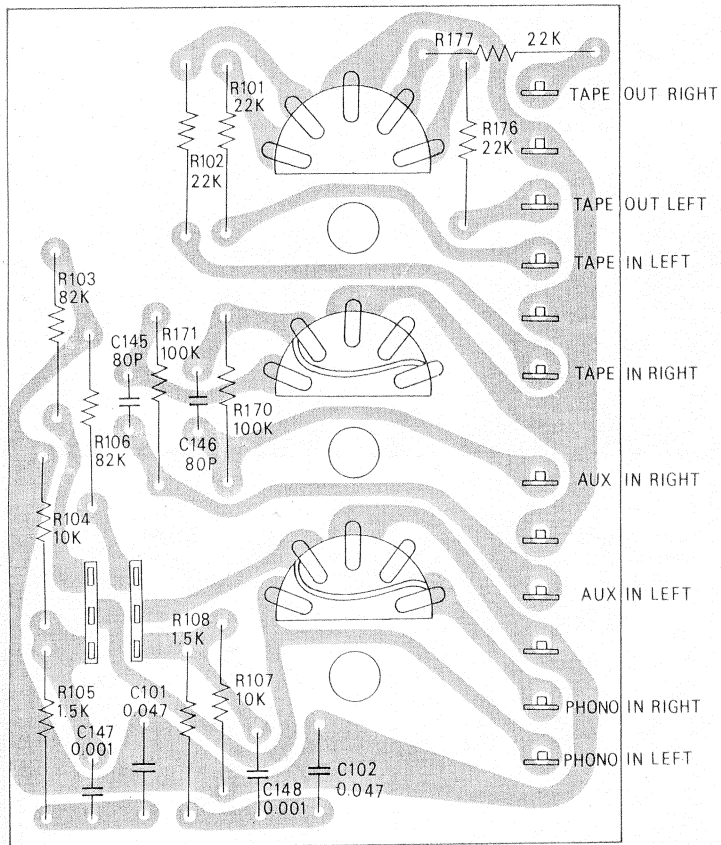


Fig. 7

(Set No. 1 ~ 3000)

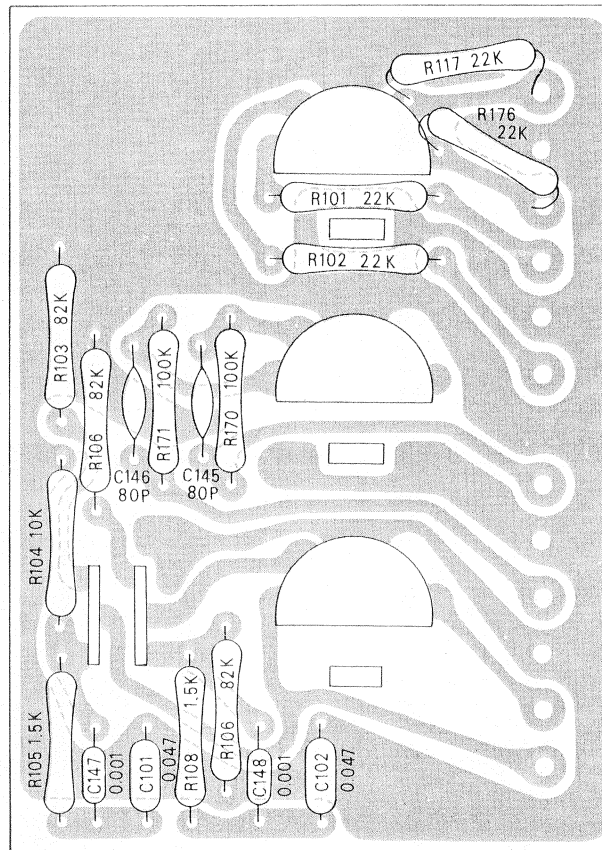


Fig. 8

POWER SUPPLY P.C. BOARD

(BOTTOM VIEW)

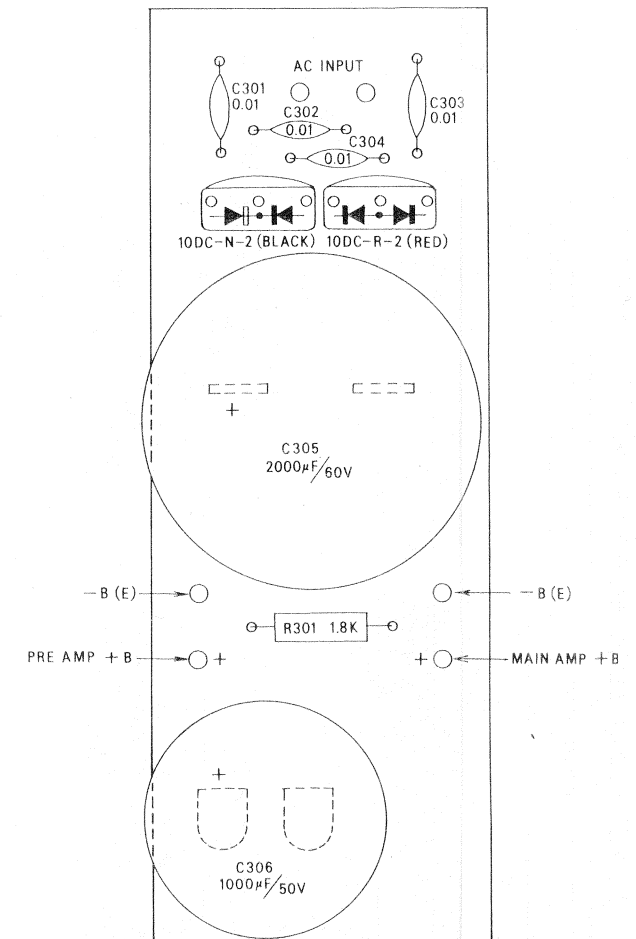


Fig. 9

PRE AMP P.C. BOARD

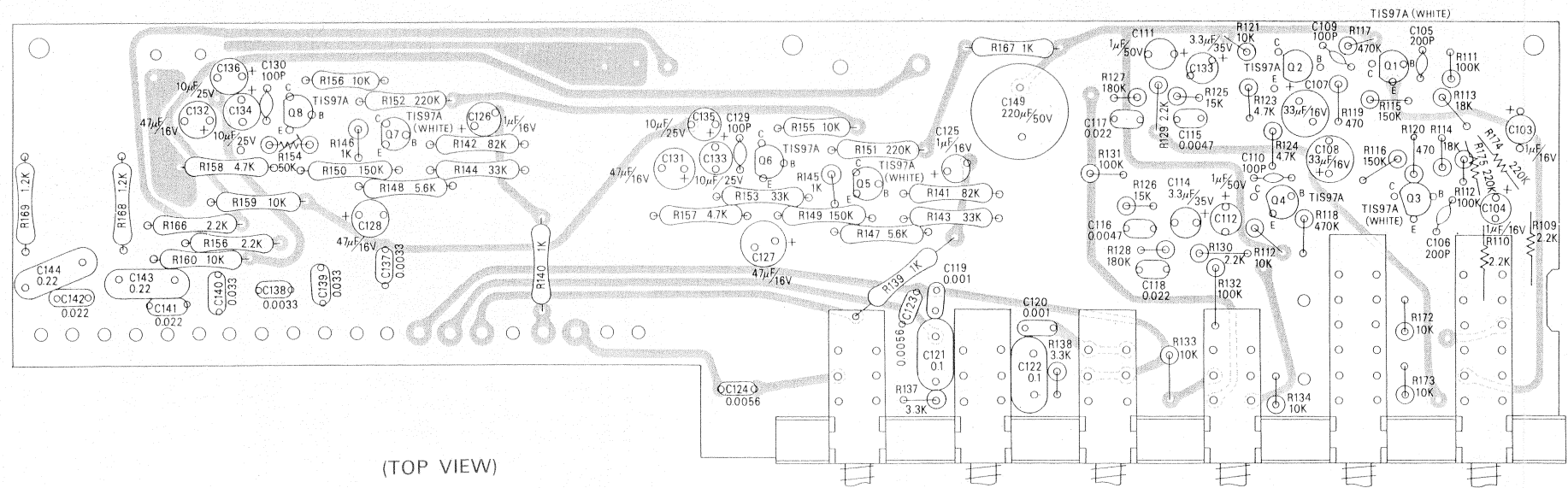


Fig. 10.

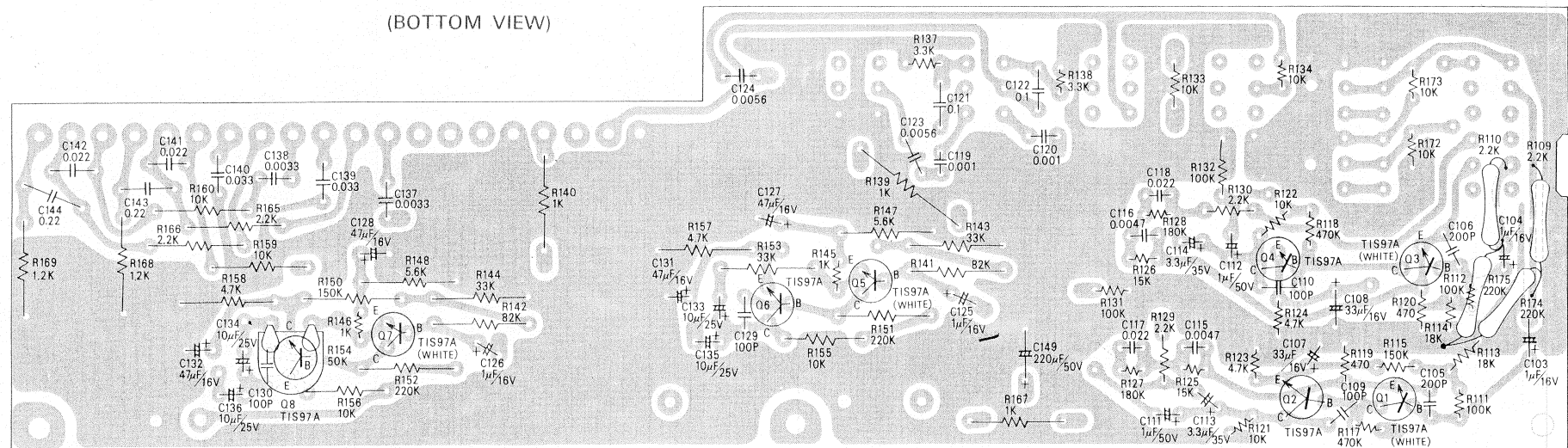


Fig. 11

GA-202 SPARE PARTS LIST (See Fig. 3)

(Standard parts as Resistors, Transistors etc. are not listed hear).

<u>PART NO.</u>	<u>DESCRIPTION</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
A: Cabinet and Packing			
R636695A	Front Panel	R811071	Cord Stopper
R851343A	Slide Volume Mask	R651613	Deck D
R840643A	Cabinet (Upper Part)	R530303A	Pre-amp P.C.B.
R651606	Side Board Metal (With Cabinet)	R437008	Lead Terminal
R871229	Switch Knob (No. 229)	R530293	Power Supply P.C.B.
R820175	Knob Guide	R633181	Electrolytic Capacitor Holder
R871230	Slide Knob (No. 230)	R651615A	Deck R
R870176	Pilot	R651616	Deck L
R651607A	Bottom Board	R851346B	Terminal Board
R851344	Insulation Fiber (With Bottom Board)	R434009	Fuse Holder
N830465	Rubber Stand	R422010	Slide Switch (AC Select)
R885512	Individual Carton	H850211	Switch Mask
R811175	Inside Carton	R110110A	Power Transformer
R890543	Rating Plate	R890544A	Identification label
R890434	Fuse Label	R651418	Trans. Holder A
R830456	Cushion	R830376	Rubber Bushing
		R651614	Trans. Holder
		R651551	Bushing
		R851347	L Type Fiber
		R440040	AC Line Cord (With Plug)
B: Other Parts			
R651608	Deck A		
H430028	Fuse Holder for P.C.B.		
R382013	Semi-fixed Resistor 50k ohmB (R215, 154)		
R382011	Semi-fixed Resistor 500 ohmB (R221, 222)		
	Glass Tube Fuse 1.5 A		
	Glass Tube Fuse 1 A		
	Glass Tube Fuse 2 A		
R530301	Main Amp. P.C.B.		
R651667	Heat Sink (for Q13, Q14, Q15, Q16)		
R830451	Cushion		
R651609	Deck B		
R439000	Head Phone Jack		
R651610	Jack Holder		
R429043	Power Switch		
R633059	Pilot Socket		
R411032	Pilot Lamp 12 V 150 mA		
R361067	Slide Volume (Bass Treble)		
R361068	Slide Volume (Volume)		
R530304	Volume P.C.B.		
R429044	Push Switch (Selector)		
R651611	Rear Panel		
R921011	GND Screw		
R439011	DIN 5P Connector (Input)		
R422036	Slide Switch (Phono Select)		
R676184	Spacer		
R530302A	Input P.C.B.		
R651612	Transistor Cover		
R438013	DIN 2P Jack (Output)		